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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,395	08/29/2003	Tetsuya Ishida	10973-103001	3577
26211	7590	06/28/2005	EXAMINER	
FISH & RICHARDSON P.C. CITIGROUP CENTER 52ND FLOOR 153 EAST 53RD STREET NEW YORK, NY 10022-4611			NEGRON, ISMAEL	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/652,395

Applicant(s)

ISHIDA, TETSUYA

Examiner

Ismael Negron

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/29/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Title*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: **Adjustable Vehicle Headlamp Apparatus with Abnormal Operation Detection Means.**

### *Drawings*

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "**304**" has been used to designate both "*light source*" (page 11, line 20) and "*electric discharge bulb*" (page 12, line 5). In addition, note the following:

- reference character "**434**", used to designate "*motor drive circuit*" (page 21, line 17) and "*switching matrix circuit*" (page 22, line 3);  
and
- reference character "**428**", used to designate "*annular rotor magnet*" (page 17, line 14), "*magnet roller*" (page 22, line 16) and "*magnet rotor*" (page 22, line 19).

3. The applicant is advised that the reference characters must be properly applied, with no single reference character being used for two different parts or for a given part and a modification of such part. See MPEP §608.01(g). Applicant is further advised that

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this action only exemplifies the objections to the drawings, applicant's cooperation is requested in correcting all the occurrences of the cited, or any other errors of which applicant may become aware in the specification.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The disclosure is objected to because of the following informalities:

- line 6 of page 20 should read "the right 3R and the left swivel lamp **lamps 3R**, 3L and capable of"; and
- line 2 of page 27 should read "axis of irradiation of the swivel lamp 3R, ~~3~~ **3L** can be".

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by SHIBATA et al. (U.S. Pat. 4,908,560).
7. SHIBATA et al. discloses a vehicle lamp system having:
  - **a light distribution control (LDC) means (as recited in Claim 1),**  
Figure 2, reference number 5;
  - **the LDC means being for controlling the direction or range of**  
**light emitted by a light source (as recited in Claim 1);** column 3,  
lines 54-65;
  - **a rotation drive means (as recited in Claim 1),** Figure 1,  
reference number 4;
  - **the rotation drive means having a drive motor (as recited in**  
**Claim 1),** Figure 1, reference number 46;
  - **the motor driving the LDC means (as recited in Claim 1),**  
column 3, lines 59-65;
  - **rotation range detection (RRD) means (as recited in Claim 1),**  
Figure 1, reference number 47;

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- the RRD means being for detecting a rotation range of the drive motor (as recited in Claim 1), column 3, lines 35-40;
- abnormality judgment (AJ) means (as recited in Claim 1), Figure 1, reference number 41;
- the AJ means being for judging an abnormality of the rotation drive means (as recited in Claim 1), column 3, lines 41-50;
- the judging being according to a rotation range of the drive motor detected by the rotation range detection means when the rotation drive means is driven in a predetermined condition (as recited in Claim 1), column 3, lines 41-53;
- a first rotation range being obtained when the drive motor is rotated in one direction and then rotated in the opposite direction (as recited in Claim 2), inherent;
- the AJ means judges an abnormality under a predetermined condition by comparing the first rotation range with a predetermined rotation range (as recited in Claim 2), column 3, lines 54-65;
- a pair of rotation ranges being obtained when the drive motor is rotated in one direction and the other rotation range being obtained when the drive motor is rotated in the opposite direction (as recited in Claim 3), inherent;

- the AJ means judges an abnormality under a predetermined condition by comparing one of the pair of rotation ranges with a previously set predetermined rotation range (as recited in Claim 3), column 3, lines 54-65;
- when one of the pair of the rotation range is larger than the predetermined rotation range the rotation is judged to be abnormal (as recited in Claim 3), inherent; and
- the AJ means repeats a judgment motion when it has judged an abnormality (as recited in Claim 4), as evidenced by column 7, lines 14-33.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over SHIBATA et al. (U.S. Pat. 4,908,560).
9. SHIBATA et al. discloses a vehicle lamp system having:
  - a light distribution control (LDC) means (as recited in Claim 1),  
Figure 2, reference number 5;

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- **the LDC means being for controlling the direction or range of light emitted by a light source (as recited in Claim 1), column 3, lines 54-65;**
- **a rotation drive means (as recited in Claim 1), Figure 1, reference number 4;**
- **the rotation drive means having a drive motor (as recited in Claim 1), Figure 1, reference number 46;**
- **the motor driving the LDC means (as recited in Claim 1), column 3, lines 59-65;**
- **rotation range detection (RRD) means (as recited in Claim 1), Figure 1, reference number 47;**
- **the RRD means being for detecting a rotation range of the drive motor (as recited in Claim 1), column 3, lines 35-40;**
- **abnormality judgment (AJ) means (as recited in Claim 1), Figure 1, reference number 41;**
- **the AJ means being for judging an abnormality of the rotation drive means (as recited in Claim 1), column 3, lines 41-50;**
- **the judging being according to a rotation range of the drive motor detected by the rotation range detection means when the rotation drive means is driven in a predetermined condition (as recited in Claim 1), column 3, lines 41-53;**



- **the rotation range detection means including a sensing element (as recited in Claim 5), Figure 1, reference number 47;**
- **a second sensing element, Figure 1, reference number 2;**
- **the second sensing element sensing rotation of a steering wheel, column 2, lines 36-39;**
- **the second sensing element outputting pulse signals in response to the rotation of the drive motor (as recited in Claim 5), column 2, lines 5-57;**
- **an up-down counter (as recited in Claim 5), Figure 1, reference number 32;**
- **the counter counting the number of pulses (as recited in Claim 5), inherent; and**
- **a first rotation range being obtained from a first counting number of the up-down counter when the steering wheel is rotated in one direction and a second counting number of the up-down counter when rotated in the opposite direction (as recited in Claim 6), inherent.**

10. SHIBATA et al. discloses all the limitations of the claims, except:

- the sensing element outputting pulse signals in response to the rotation of the drive motor (as recited in Claim 5);
- the AJ means judges an abnormality by comparing a first rotation range with a predetermined rotation range (as recited in Claim 6);

- when a condition is judge as abnormal, the head lamp is deflected and fixed at a maximum deflection angle (as recited in Claim 7);
- when a condition is judged as abnormal, the head lamp is directed forward (as recited in Claim 8).; and
- when a condition is judged as abnormal, the head lamp emitting light at a low luminance (as recited in Claim 9).

11. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to substitute the motor rotation sensor of SHIBATA et al. with a pulsed output sensor like the steering wheel rotation sensor to increase the precision of the motor position detection means, as per the teachings of SHIBATA et al.

12. Regarding the headlamp being positioned at a maximum deflection angle (as recited in Claim 7), being directed forward (as recited in Claim 8) or the head lamp emitting light at a low luminance (as recited in Claim 9) when an abnormal condition is detected, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to position the headlamp as claimed when an abnormal condition is detected, since selecting a specific position for the headlamp in the event of an abnormal condition would amount to a recitation of the intended use of the patented invention, without resulting in any structural difference between the claimed invention and the structure disclosed by SHIBATA et al., and therefore fails to patentably distinguish the claimed invention from the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In this case, once the

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patented structure of SHIBATA et al. is known selecting the action to be taken in response to the detection of an abnormal condition would have flown naturally to one of ordinary skill in the art motivated by the particular requirements of a specific application, or desired effect.

### ***Relevant Prior Art***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Rich** (U.S. Pat. 3,872,369), **Sato et al.** (U.S. Pat. 3,953,774), **Hyatt** (U.S. Pat. 4,034,276), **Tal** (U.S. Pat. 4,157,489), **Nomura et al.** (U.S. Pat. 4,313,074) and **Uehara et al.** (U.S. Pat. 5,252,902) disclose a plurality of servo motors having position feedback systems including position sensors generating a digital or pulsed output, and UP/DOWN counters for quantifying the output of the sensor.

**Shibata et al.** (U.S. Pat. 4,943,893), **Lee** (U.S. Pat. 5,099,400) and **Devlin et al.** (U.S. Pat. 6,655,817) disclose vehicle illumination systems having adjustable headlamps actuated by servo motors. The servo motors includes means for detecting the actual positional response of the motor, such positional response being use to detect and correct any deviation from the desired output.

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**Conclusion**

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (571) 272-2376. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (571) 272-2378. The facsimile machine number for the Art Group is (703) 872-9306.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications maybe obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.



**THOMAS M. SEMBER  
PRIMARY EXAMINER**



June 24, 2003